TOP SECRET

Copy 199
14 Pages

[redacted]

TCS-84012/65
May 1965

CENTRAL INTELLIGENCE AGENCY
PHOTOGRAPHIC INTELLIGENCE REPORT

# NEW DIRT STRIP UNDER CONSTRUCTION AND SARY-SHAGAN AIRFIELD SOUTHWEST SARY-SHAGAN, USSR

Handle Via TALENT - KEYHOLE Control Only

PHOTOGRAPHIC INTELLIGENCE DIVISION



TOP SECRET

## WARNING

This document contains classified information affecting the national security of the United States within the meaning of the espionage laws U. S. Code Title 18, Sections 793 and 794. The law prohibits its transmission or the revelation of its contents in any manner to an unauthorized person, as well as its use in any manner prejudicial to the safety or interest of the United States or for the benefit of any foreign government to the detriment of the United States. It is to be seen only by personnel especially indoctrinated and authorized to receive TALENT-KEYHOLE information. Its security must be maintained in accordance with KEYHOLE and TALENT regulations.

PUBLISHED AND DISSEMINATED BY NPIC

Handle Via
TALENT-KEYHOLE
Control System Only

TCS-84012/65

PHOTOGRAPHIC INTELLIGENCE REPORT

# NEW DIRT STRIP UNDER CONSTRUCTION AND SARY-SHAGAN AIRFIELD SOUTHWEST SARY-SHAGAN, USSR

May 1965

PHOTOGRAPHIC INTELLIGENCE DIVISION

Handle Via
TALENT-KEYHOLE
Control System Only

TOP SECRET CHESS RUFF

Approved For Release 2006/06/23 : CIA-RDP78T04759A002300050002-6

## PREFACE

This report is in response to CIA requirement C-SI4-81,861. It provides information on the new dirt strip under construction at Sary-Shagan, a comparison with the other dirt strip at Sary-Shagan Airfield Southwest, a description of associated installations near the strip, and a description of roads in the area.

Mensuration contained in this report was determined by photogrammetrists in the NPIC/Technical Intelligence Division. Distances are considered accurate within ± 10 feet or 1 percent, whichever is larger, and azimuths within [redacted] 25X1

Throughout this report, dates of information are cited without specific references to the mission numbers from which the information was derived. The mission number and other pertinent photographic data may be obtained from the references at the end of this report.

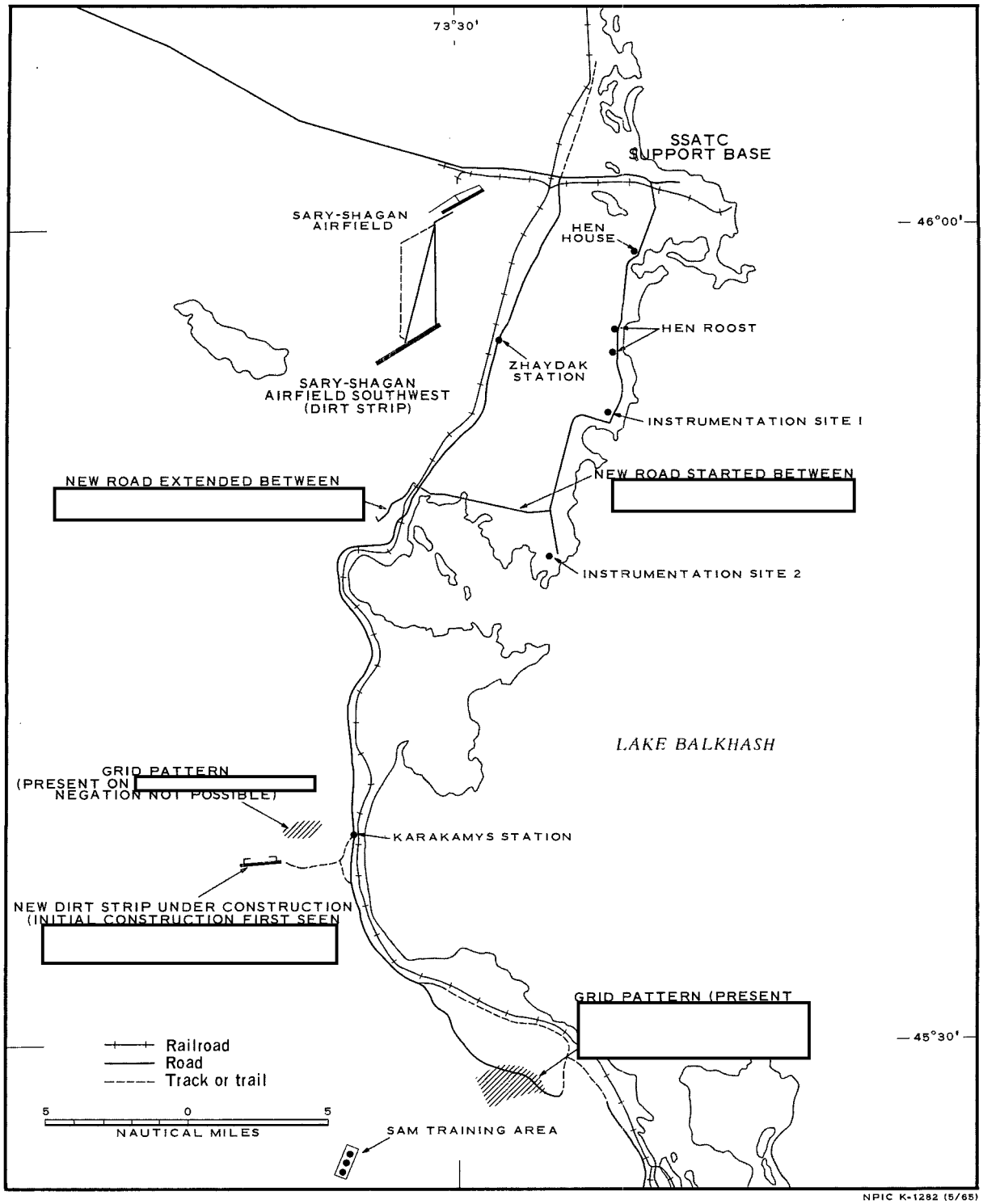


*FIGURE 1. LOCATION OF NEW DIRT STRIP UNDER CONSTRUCTION AND SARY-SHAGAN AIRFIELD SOUTHWEST.*

## NEW DIRT STRIP UNDER CONSTRUCTION

The new dirt strip is located 15.5 nautical miles (nm) southwest of Sary-Shagan Instrumentation Site 2. It was first observed under construction on [redacted] and can be negated on photography of [redacted] Initial coverage revealed a 3,230-foot strip which had been extended to 10,510 feet by [redacted]

### Location and Topography

The new dirt strip is located at 45-36-20N 073-19-40E, 11 nm north-northwest of the Sary-Shagan SAM Training Area, and 15.5 nm southwest of Sary-Shagan Instrumentation Site 2 (Figure 1). Elevation of the strip is probably between 1,000 and 1,500 feet above mean sea level. The site is a barren basin between a salt pan and a string of low rock outcrops approximately 3.5 nm west of Zaliv Karakamys, a bay along the southwestern shore of Lake Balkhash. The low outcrops pose no significant obstruction to normal flying operations.

### Runway

Photography of [redacted] revealed a graded earth strip measuring 3,230 by 400 feet. A 7,000-foot survey line extended westward in alignment with the longitudinal axis of the graded strip. On photography 4 days later, the strip had been extended to a length of 10,510 feet (Figures 2 and 3).

The strip is 390 feet wide at the eastern end, 490 feet wide at the western end, and is oriented on an azimuth of [redacted] probably coinciding with the prevailing winds. The orientation is approximately 25 degrees different from that of Sary-Shagan Airfield and the large adjacent dirt strip at Sary-Shagan Airfield Southwest (Figure 4). Dimensional variation and roughly parallel earth scars north of the new strip suggest that it is being widened to more than 1,000 feet. Expansion possibilities to the west of the strip are excellent; however, rock outcrops would probably limit eastward extension to less than 1,000 feet. The width of the strip could be expanded approximately 1,000 feet to the north and 4,000 feet to the south. There has been no evidence of aircraft activity.

25X1
25X1
25X1
25X1
25X1

### Associated Facilities

A 40- by 30-foot probably single-story building is 3,200 feet from the east end of the strip along a gravel road which extends toward the lake front and Karakamys Railroad Station

25X1

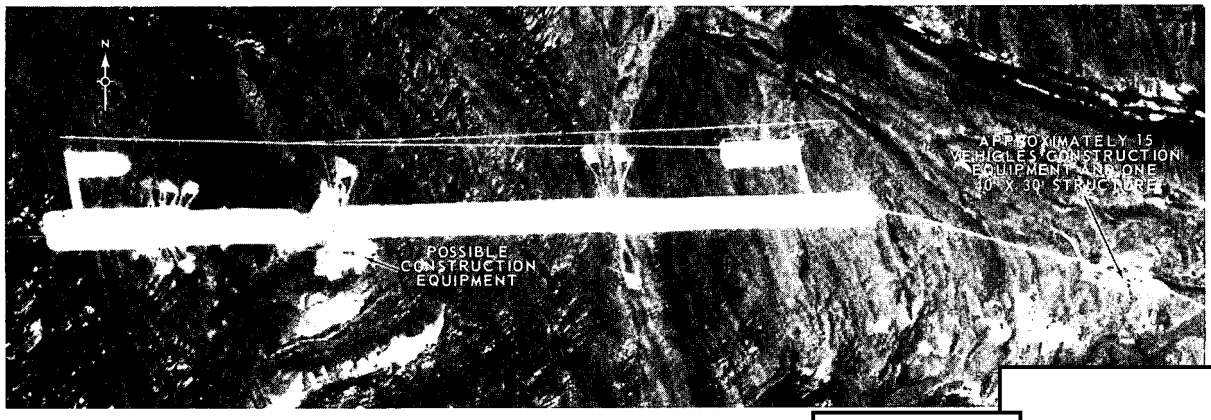


*FIGURE 2. NEW DIRT STRIP UNDER CONSTRUCTION, SSATC,* [redacted]

25X1
25X1

(Figures 2 and 3). The building is possibly used by construction crews. Karakamys Station, present [redacted] is a railroad way station with 5 small buildings and a passing track, situated on the lake front approximately 3 nm east of the new dirt strip.

No hangars, workshops, dispersal areas, storage facilities, or evidence of construction activity on any of these could be detected. There is no evidence of camouflage.

**Transportation Facilities**

The new dirt strip is served by a gravel road which connects with a narrow, fair-weather loose surface road which skirts the lake front and connects Karakamys Station with the Antimissile Test Center to the north and other points to the south (Figures 1 and 3). A new hard-surface road is under construction west of Instrumentation Site 2 and could eventually serve the new dirt strip to the south. Construction on the road was started between 25 June and 12 July 1964.

A single-track rail line of the Kazakh rail system runs north/south along the shores of Lake Balkhash approximately 3 nm east of the new strip. The rail line serves cities in southern Kazakhskaya SSR, the Sary-Shagan Antimissile Test Center, and cities farther north, including Mointy, Karaganda, and Akmolinsk.

**Miscellaneous Activity**

An area of faint parallel earth scars forms a grid pattern approximately 2 nm northeast of the graded earth strip. A similar pattern is approxi-

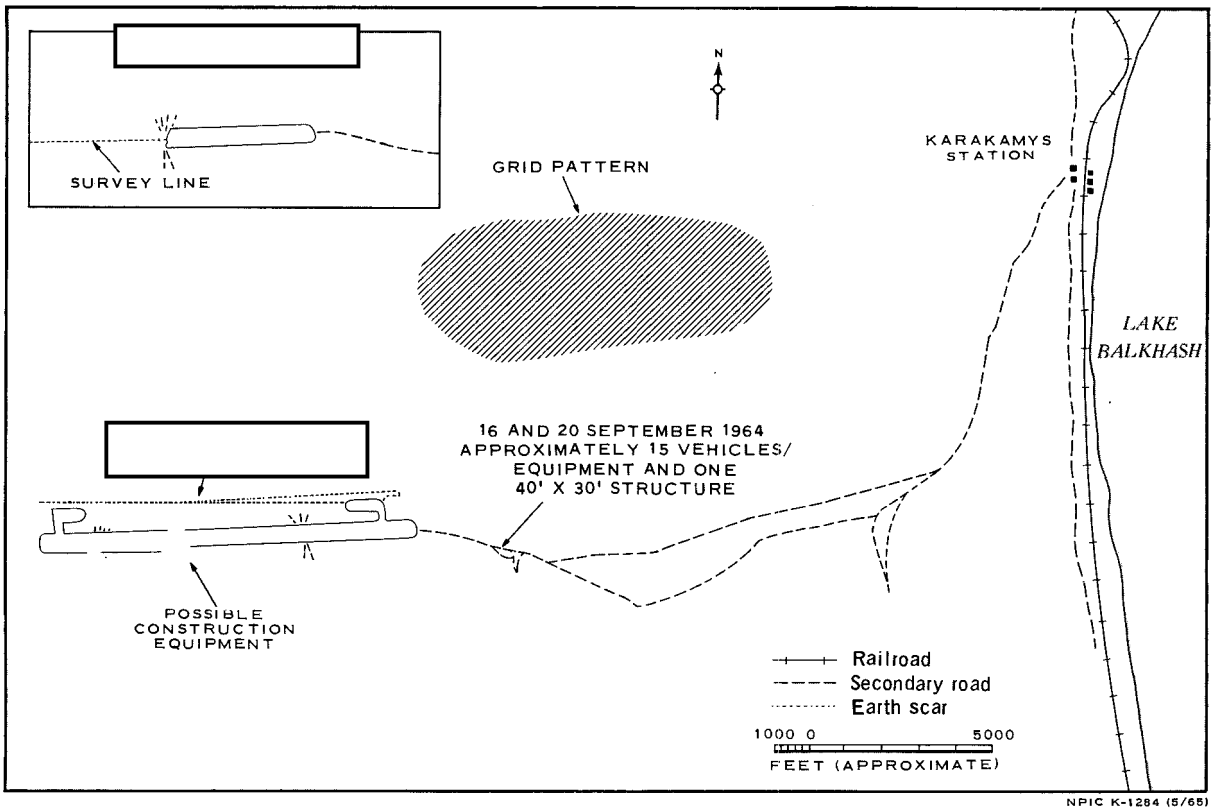


*FIGURE 3. CONSTRUCTION PROGRESS AT NEW DIRT STRIP UNDER CONSTRUCTION.*

mately 5 nm east-northeast of the SAM Training Area (Figure 1). These scars are not unique or confined to this particular location and are possibly the result of electrical geophysical exploration activity. The 2 patterns have been present on photography since [redacted] Available photography does not permit negation.

## SARY-SHAGAN AIRFIELD SOUTHWEST

Sary-Shagan Airfield Southwest (BE No [redacted] is situated 6 nm south-southwest of Sary-Shagan Airfield (Figure 1). The 16,925-foot dirt strip was first observed on photography of [redacted] at which time it was approximately 270 feet wide. The strip cannot be negated.

### Runway

Initial coverage in [redacted] revealed a dirt strip 16,300 by 250 feet, oriented on an azimuth of [redacted] (Figure 4). By [redacted] the strip had been widened to approximately 400 feet. [redacted] it was further widened to approximately 600 feet, and finally to approximately 1,645 feet by [redacted] The length has remained virtually constant throughout; however, the grading activity associated with the recurring widening operations gradually increased its length to 16,925 feet. On [redacted] photography first revealed a series of white stripes down the center of the dirt strip. The narrow stripes are approximately 100 feet long and are spaced 100 feet apart, forming a dashed line along approximately one-third of the strip. A white perpendicular line, approximately 400 feet long, is located at the southwest end of the dashed line, approximately 1,090 feet from the southwest end of the dirt strip. Shorter perpendicular lines are positioned approximately 1,130 feet and 4,700 feet from the northeastern end of the strip. At the midpoint on the dirt strip the dashed line becomes a wider solid line (Figures 5 and 6). Earth scars lead from the operations area to the midpoint of the

25X1 25X1 25X1 25X1 25X1 25X1 25X1 25X1 25X1 25X1

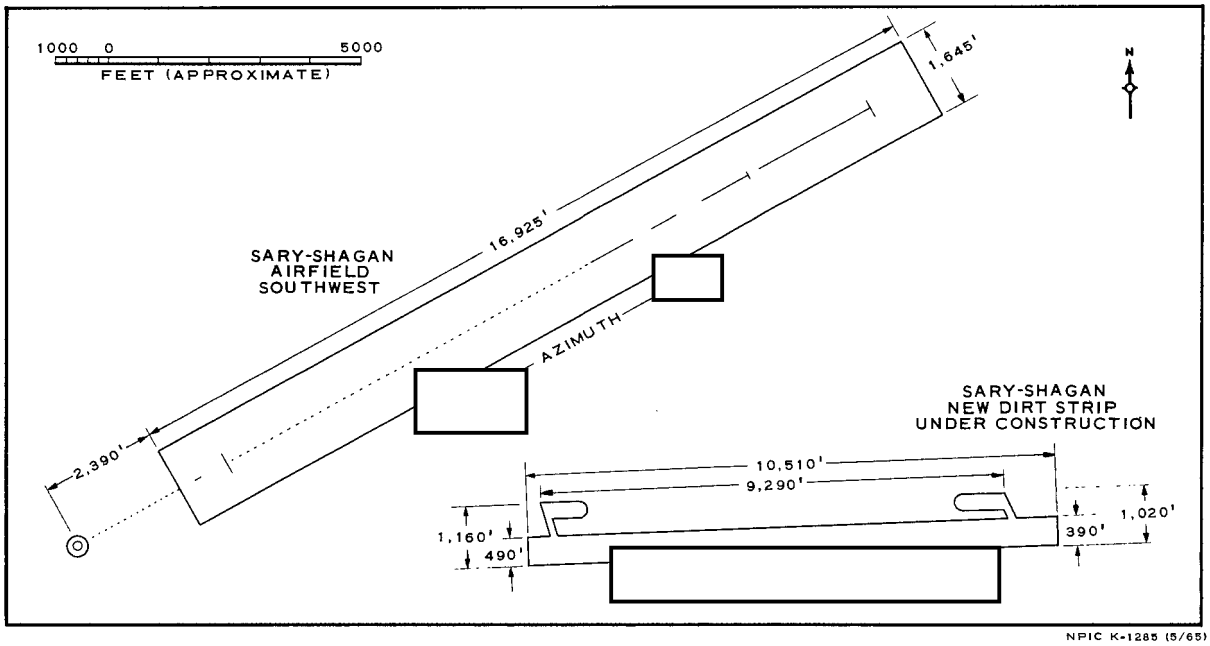


*FIGURE 4. COMPARISON OF SIZE AND ORIENTATION OF THE NEW DIRT STRIP UNDER CONSTRUCTION AND SARY-SHAGAN AIRFIELD SOUTHWEST.*

strip where the solid center line appears to terminate. Farther to the northeast a faint irregular white line continues along the center of the strip, terminating at the second small perpendicular line, 1,130 feet from the northeastern end of the dirt strip.

**Aircraft**

Photography of [redacted] revealed a swept-wing probable aircraft or ASM parked adjacent to the east side of the rectangular operations area. It appears to have swept-back wings and its dimensions suggest either a FITTER or a possible winged ASM vehicle of similar size. Examination of previous photography reveals that the probable aircraft or ASM was parked in the same location on [redacted] It was not present on [redacted] A BADGER-type aircraft was observed at the northeastern edge of the strip on [redacted] It was parked in the same location on each of the two dates. These are the only aircraft detected on the strip since it was first photographed in [redacted]

**Associated Facilities**

[redacted] revealed work on an operations area approximately 1,000 feet north of the midpoint of the strip. The area was improved, expanded, and fenced on 3 sides by a low, possibly solid fence during the following months. By [redacted] the area was approximately 700 by 400 feet. The area contains a 70- by 40-foot probably single-story building. Possible construction equipment and a number of parked vehicles are usually in the area (Inset, Figure 6).

A 100-foot wide parking apron, east of and adjacent to the operations area, was added between [redacted] A larger, graded area, added between [redacted] connects the southeastern side of the operations area with the dirt strip.

25X1

**Radar/Electronic Equipment/Landing Aids**

The latest photography, [redacted] reveals 2 possible radars parked approximately 2,400 feet north of the dirt strip. They are parked approximately 120 feet apart and 120 feet from their supporting vehicles. One of the possible radars is suspected to have been emplaced between [redacted] The other was emplaced between [redacted]

25X1

TALENT photography of [redacted] revealed no positive evidence of landing aids, control equipment, or other installations. [redacted] a possible landing aid was located 2,390 feet in front of the southwest end of the strip. The possible landing aid is positioned inside a roughly circular area approximately 175 feet in diameter, surrounded by what appears to be an ungraded area, which is further encircled by a graded band, producing a pattern of concentric circles 490 feet in diameter. All expansions of the dirt strip have maintained this possible landing aid in alignment with the longitudinal center of the strip. There has been no evidence of van shelters or other structures in the circular pattern. An earth scar extends from the dirt strip, through the circular pattern and continues beyond, toward a line of low hills which appear approximately 8,500 feet off the southwest end of the dirt strip. Approximately 1 nm west of the strip the earth scar curves gently southward and then becomes a probable trail, branching in 3 different directions.

A 75-foot landing tee, first seen on [redacted] is situated on the dirt strip 2,300 feet from the southwest end and 420 feet from the north edge. The top of the tee points toward the northeast, indicating landing and takeoff directions.

Two white aircraft outlines, probably markers, are approximately 1,000 feet south and 1,500 feet east of the southeastern corner of the dirt strip. They were first observed on [redacted] and have not been moved since. The northernmost probable marker is roughly similar in size and shape to a BADGER-type aircraft. The other probable marker has been continuously less distinct.

**Transportation**

The dirt road north of and adjacent to the strip was extended approximately 4,000 feet to a point approximately 900 feet off the southwest end of the field between [redacted] Since initial photography, a dirt road has connected the northeast end to Sary-Shagan Airfield. This road is sufficiently wide to use as a taxi strip; however, existing photography does not permit detection of road surface conditions nor has it ever revealed any aircraft on the road. Immediately east of and attached to the northeast corner of the strip is a roughly parallel earth scar ending in a loop pattern. This scar was added between [redacted] (Figures 5 and 6).

**Miscellaneous Activity**

Photography of [redacted] revealed an Adcock-type pattern, with a diagonal dimension of approximately 180 feet, in a graded area approximately 500 feet north of the northeast end of the dirt strip. The same mission revealed a smaller Adcock pattern just south of the operations area. Subsequent missions of better quality do not reveal similar patterns; however, the graded area off the northeast end of the strip remains prominent and is possibly used to store equipment.

[redacted] 25X1

Sary-Shagan was covered with a blanket of snow. The [redacted] photo coverage showed no 25X1
activity on the dirt strip, though there was 25X1
evidence of occupancy of the building in the 25X1
operations area. There was also evidence of equipment and/or vehicles in the area later identified as the location of a possible radar with its associated vehicles. The same mission revealed the Sary-Shagan hard-surface runway and taxiways cleared of snow. The World Meteorological Organization Manual for 1964 records that snowfall in the Balkhash area occurred on 24 and 25 December 1964, with the intensity varying between 1 and 4 inches accumulation rate per 6 hours. [redacted] 25X1
fall was reported during an 18 hour period and 25X1
on 25 December, during a 6 hour period.

Considerably more activity was observed at the original dirt strip on 16 February 1964. The operations area was active and adjacent roads were cleared of snow, including the road leading to Sary-Shagan Airfield. An approximate 16,000- by 500-foot strip was cleared of snow following snowfall 2 weeks previously. Because of the nature of the dirt strip surface, 25X1
some snow probably remained following the clearing operation. This resulted in a thin layer of snow cover through which dark earth striations could be seen. The southwestern end of the cleared strip has extensive areas of snow 25X1
meltage, indicating the probability that the strip was used by jet-type aircraft after the last snowfall.

## DISCUSSION AND CONCLUSIONS

**New Graded Earth Strip**

The construction activity at the new dirt strip could be evidence of subgrade preparation for a new hard surface airfield, or simply earth


*FIGURE 5. SARY-SHAGAN AIRFIELD SOUTHWEST,* [redacted]

25X1
25X1

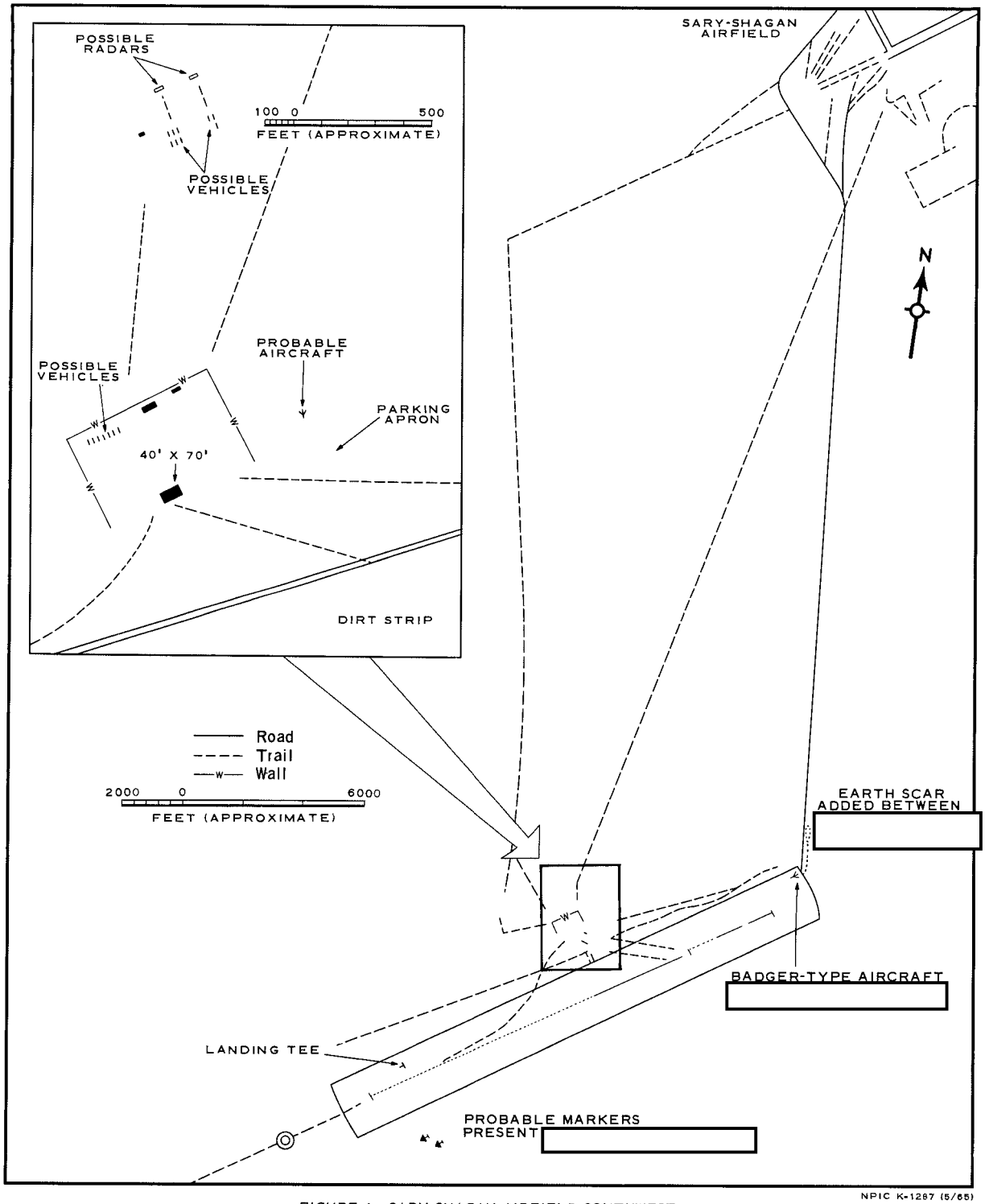


*FIGURE 6. SARY-SHAGAN AIRFIELD SOUTHWEST.*

grading for a second dirt strip, smaller than Sary-Shagan Airfield Southwest. It is too early in the construction cycle to predict the ultimate configuration and capability of the new strip. The pattern of activity suggests that either a parallel runway is under construction or the strip is being widened to over 1,000 feet. The lack of construction on any associated facilities and the strip's distance from other Sary-Shagan activities leaves its purpose open to considerable speculation.

Road communications with the new graded-earth strip are currently restricted to a dirt road, and it is too early for a firm assessment of the purpose of the new hard-surface road construction west of Instrumentation Site 2. Although extension of this road to serve the new dirt strip farther south is possible, the peculiar hook on the present terminus of this road suggests that construction of some kind might be planned at that point.

**Sary-Shagan Airfield Southwest**

The previous lack of aircraft activity and the mottled appearance of the strip, with original natural topographic surface patterns visible through the grading striations, allow for speculation about possible functions other than that of a landing strip.

Recent photography, however, reveals evidence which proves that the strip is intended as a landing strip. This evidence includes sighting 2 different aircraft in [redacted] on 5 different missions; probable use by jet-type aircraft after the snowfall on [redacted] and snow clearance during this same period; the white dashed line marking the center of the strip; the landing tee and possible landing aid off the southwest end of the strip; the wide road connecting the strip to Sary-Shagan Airfield; and orientation with the prevailing winds. 25X1 25X1 25X1

The appearance of a mottled surface and persistence of original surface patterns is not unusual with shallow grading on dirt strip landing surfaces. Grader marks, running lengthwise down the strip, are apparent on better quality photography.

Normally, a dirt strip of this type would be for limited or emergency use as it would be unserviceable in wet weather. This dirt strip would be serviceable for long periods, however, due to the arid climate in the area.

The lack of extensive aircraft activity on the dirt strip and its proximity to a class-1 operational airfield suggest that it is intended for use by unique developmental or test aircraft which might create a hazard if employed off Sary-Shagan Airfield. The very size of the strip suggests the intention to land pilotless aircraft, air-to-surface aerodynamic missiles, or possibly target drones.

REFERENCES (Continued)

CHARTS

ACIC. US Air Target Chart, Series 200, Sheet 0245-9AL, 2d ed, May 61, scale 1:200,000 (SECRET)

ACIC. US Air Target Chart, Series 200, Sheet 0245-10AL, 2d ed, Jun 60, scale 1:200,000 (SECRET)

ACIC. US Air Target Chart, Series 200, Sheet 0245-14AL. 3d ed, Mar 61, scale 1:200,000 (SECRET)

ACIC. US Air Target Chart, Series 200, Sheet 0245-15AL, 2d ed, Mar 63, scale 1:200,000 (SECRET)

AMS. Series DESPA-1, Sheet NL 43-7, Edition 1, Jun 63 (TOP SECRET RUFF)

AMS. Series DESPA-1, Sheet NL 43-4, Edition 1, Jun 63 (TOP SECRET RUFF)

RELATED DOCUMENTS

NPIC. R-162/64, *Antimissile Test Center, Sary-Shagan, USSR, Changes and Additions as of* [redacted] Mar 64 (TOP SECRET CHESS RUFF) 25X1

CIA. PIC/JR-1010/61, *Antimissile Complex, Sary Shagan, USSR,* Apr 61 (SECRET, [redacted] Downgrading Prohibited) 25X1 25X1

World Meteorological Organization Manual for 1964 (UNCLASSIFIED)

REQUIREMENT

CIA. C-SI4-81,861

PROJECT

30282/65